



NFQES

NFQES IAM

A centralized solution for authentication, authorization, and identity management of users

IAM (Identity & Access Management) provides a unified mechanism for user sign-in, access control, and enforcement of security policies across the entire organizational infrastructure. The solution is designed as a **ready-to-use platform** that can be deployed immediately without the need for extensive custom development.

Benefits

- Centralized identity and access management
- Support for modern security standards
- Ready-to-use administrative interface
- Flexible API-based integration
- Scalability for large organizations
- Minimal requirements for custom development

Core functionalities

Authentication and
Authorization

- Support for OAuth 2.0 and OpenID Connect (OIDC) standards
- Issuance and validation of JWT tokens
- Centralized access control for frontend applications and backend APIs
- Single Sign-On (SSO) support



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User and Identity Management

- Creation, modification, and deactivation of user accounts
- Management of user profiles
- **Identity management via:**
 - ↳ *Web-based administrative interface*
 - ↳ *REST API (documented using Swagger/OpenAPI)*

Roles and Permissions

- Definition of custom roles
- **Role assignment:** *at the individual user level or at the user group level*
- Dynamic permission changes without application-level modifications.
- Centralized storage of authorization rules.

User Groups

- Creation and management of groups with a large number of users.
- Bulk operations on groups: role assignments, notifications, permission changes.
- Simplified administration for large organizations.

Delegation and "On-Behalf-Of" Access

- Support for authentication on behalf of another entity
- **Ability to:** *sign in as another user and sign in on behalf of an organization*
- **Suitable for:** *delegation scenarios, service accounts, approval workflows*

Supported SSO solutions

Microsoft Entra ID
(Microsoft 365)

Active Directory

OAuth 2.0 / OIDC-
compliant identity providers





Integration Models



External Permission Management

- Permissions defined directly within the SSO system (e.g. Microsoft Entra ID).



Internal Permission Management

- SSO handles authentication only.
- Authorization and roles are managed within IAM.

Administrative interface

- Web-based interface for complete IAM management.
- Management of: *Users, groups, roles, permissions.*
- No need to develop a custom administration portal.
- Full automation capabilities via API.

Monitoring, Auditing, and Security

Area	Capabilities
Monitoring	Track user sign-ins, API calls, and network access
Threat Detection	Identify anomalous behavior
Security Controls	Enable audits, block access, apply geographic restrictions
Reporting	Export logs in CSV or Excel



Technical interfaces

Technical interfaces enable integration of the IAM system with external applications and services via standardized APIs and protocols

- REST API
- OpenAPI / Swagger documentation
- JWT validation for external systems
- Integration options for:

Custom web applications



Mobile applications



Microservices architectures



Selected references



Tatra Leasing - is a subsidiary of Tatra banka, a.s., which focuses on financing movable and immovable property for entrepreneurs and private individuals.

- New client zone
- Saving costs, personnel and time
- High legal certainty
- Limiting the need for specialized hardware (tablet, reader)

Implementation of an advanced electronic signature based on legal and risk management requirements. An advanced electronic signature brings high legal certainty and at the same time enables easy onboarding of customers.



Characteristics

Support for Qualified Electronic Signatures (QES)

Access to functionalities via standardized APIs (REST/SOAP)

Compatibility with QSCD and certified HSM devices

Wide support for document formats – signing and verification of PDF, DOCX, ODT, XML, and others

Security in compliance with eIDAS and Slovak legislation – the application meets the requirements of Regulation (EU) No. 910/2014 (eIDAS)

OCSF protocol support – real-time certificate validation according to RFC 6960

Robust integration – the solution can operate with any certification authority

Multi-instance support – high availability and reliability through a scalable architecture.

Supported Qualified Electronic Signature Formats	Supported Cryptographic Standards	Supported Cryptographic Algorithms
CAeS: CAeS-B, CAeS-T, CAeS-LT, CAeS-LTA	CMS Advanced Electronic Signatures	RSA, DSA, EC, ECDSA MD2, MD4, MD5, SHA-1, SHA-224, SHA-256, SHA-384, SHA-512
	XML Advanced Electronic Signatures	
XAdES: XAdES-B, XAdES-T, XAdES-LT, XAdES-LTA	PDF Advanced Electronic Signatures	MD2, MD4, MD5, SHA-1, SHA-224, SHA-256, SHA-384, SHA-512
	JSON Advanced Electronic Signatures	
PAeS: PAeS-B, PAeS-T, PAeS-LT, PAeS-LTA	Support for time stamps and Trusted Lists (EUTL)	RIPEMD128, RIPEMD (128, 160, 256, 320)
	RFC 5280 – X.509 Public Key Infrastructure	
JAeS: JAeS-B, JAeS-T, JAeS-LT, JAeS-LTA	Support for time stamps and Trusted Lists (EUTL)	

Supported documents and formats

- .PDF
- .DOC
- .DOCX
- .XLSX
- .XLSM
- .JPEG
- .PNG

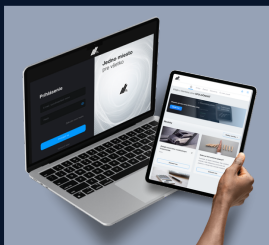
Other formats can be supported based on customer requirements.



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Case studies

Tatral leasing



Reduced workload, lower hardware requirements, time and cost savings, and **high legal certainty**.

BVS



Digitalized communication, online forms and contracts, **electronic signing via infrastructure or API**.

Medante



Digital signatures for medical documentation and contracts, **implemented in the existing MEDANTE system**.

The NFQES solution can be implemented and customized for a wide range of processes for businesses in various fields.

Contact:

Schedule a consultation with us



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ISO 14001

TUV
ISO 22301
TUV
ISO 27001

TUV
ISO 20000-1
TUV
ISO 9001



EU Trusted
List